



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1459
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,161	07/08/2003	Michael J. Malone		6488

7590 09/08/2005
Michael J. Malone
1907 Juniper Lane
Bensalem, PA 19020

EXAMINER

POLTORAK, PIOTR

ART UNIT	PAPER NUMBER
----------	--------------

2134

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,161

Applicant(s)

MALONE, MICHAEL J.

Examiner

Peter Poltorak

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

2

DETAILED ACTION

1. Claim 1 has been examined.

Drawings

2. The drawings are objected to because of the inconsistencies between the specification and presented replacement drawing sheets.
3. In the specification (*page 17*) applicant teaches that figures 10 and 11 comprise three component parts labeled as 501, 502, and 503 and that in all other figures these three component parts are depicted as a single element and labeled as 500. However, replacement sheets are not consistent with the specification. For example figure 10 depicts only one component 500 and figure 12 shows elements 501-503.
4. A similar inconsistency between the specification and the replacement sheets is observed in other places. For example pg. 19 of the specification referring to figures 4 and 5 states that the serial hard disk drive selector 500 is depicted in the USB environment. However, figures 5 and 6 utilize USB and figure 4 implements a serial ATA environment.
5. Applicant should check and correct all other inconsistencies.
6. Also, applicant refers to several figures as "typical" architecture but none of the figures is labeled as prior art. Applicant should avoid using phrases such as "typical" or label figures as prior art to avoid any confusion.
7. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even

if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Oath/Declaration

8. An Oath or Declaration identifying the city and either state or foreign country of residence and the citizenship of the inventor is required.

Claim Objections

9. In lines 21-25 applicant states that there are three component parts to the claimed computer system. Applicant should place ":" (colon) after the phrase "three component parts" in order to avoid any possible confusion by clearly emphasizing that "a master control component, a power control component, and an address/command and control/data control component" are the three components of interest rather than additional components.

10. Also, applicant should clearly emphasize that the components are part of the computer system (e.g. by restating "this coupling and uncoupling occurring prior to booting the computer system and comprising" to "this coupling and uncoupling occurring prior to booting the computer system, wherein the computer system comprises:") so that there is no ambiguity that it is the computer system and not "this coupling and uncoupling" that comprises the three components.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention.
12. In claim 1 the following lacks antecedent basis:
- a. "the user selected serial hard disk drive" in line 43 (pg. 1),
 - b. "the address/command/data control component", line 23 (pg. 2).
13. Line 23 on pg. 1 recites "an address/command and control/data control component", but on pg. 2 refers to "the address/command/data control component" (lines 23, 27 and 31).

14. Applicant should change "the address/command/data control component" to "address/command and control/data control component" in order to maintain consistency.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Miller* (U.S. Patent No. 5604890) in view of *Oue* (U.S. Pub. No. 20020007447) and in further view of *Kawamura et al.* (U.S. Patent No. 6493769).
16. *Miller* teaches a Hard Disk Drive Selector (*key switch agnd, fig. 2 object 20*) mounted permanently within a single computer system that couples one of a plurality of serial hard disk drives (*fig. 2 objects 32-37*) connected to the computer system through the Hard Disk Drive Selector to the serial hard disk drive host adapter (*hard disk controller card, fig. 2 object 9*) and a computer system power source (*power supply, fig. 2 object 11*) so that the coupled serial hard disk drive occupies a single, logical serial hard disk drive position and uncouples the other serial hard disk drives of this plurality of serial hard disk drives during a single computer system use session, this coupling and uncoupling occurring prior to booting the computer system and comprising; three component parts, a master control component, a power

control component, and an address/command and control/data control component; wherein the components are multi-pole, multi-throw switching elements with predetermined numbers of poles to switch all circuits in each peripheral bus segment of the computer system they are used in and with a predetermined number of throws to control the selection of the desired serial hard disk drive attached to the Hard Disk Drive Selector; wherein the three components are configurable (*Fig. 2*).

17. Specifically *Miller* teaches the key switch (20) mounted on the front of the computer cabinet to the desired system, the key switch being a key switch which locks out all but the selected system to be run, with an off position to lock out all systems and a key that is removable in all positions (*col. 3 lines 35-49*).
18. Before turning on the computer the user will decide which operating systems are needed and on which Key Switch 20 position it resides. The user will turn the Key Switch 20 to position 1 and then turn the Power On Switch 10 to the on position. The computer system is then supplied power from the Power Supply 11 to the Floppy Drive A, 12, Floppy Drive B, 13, the I.O.S. Circuit Board 21 (*col. 3 lines 51-66*).
19. This reads on the master control component that is accessible from the outside of the computer system's case by the user and controls the operation of the power control and the address/command and control/data control components to close their circuits to the user selected serial hard disk drive to place the serial hard disk drive in an operational mode and open their circuits to any not-selected serial hard disk drives from the serial hard disk drives connected to the Serial Hard Disk Drive Selector to place the not-selected serial hard disk drives in non-operational mode;

wherein the master control component is operated by a switch that has a removable key as a security feature.

20. *Miller* does not explicitly teach that the master control component closes the circuits of the power control and the address/command and control/data control components to the user selected serial hard disk drive to place the serial hard disk drive in an operational mode and open their circuits to any not-selected serial hard disk drives from the serial hard disk drives connected to the Serial Hard Disk Drive Selector to place the not-selected serial hard disk drives in non-operational mode.
21. *Oue* teaches a master control component [33 and 35] that closes the circuits of the power control and the address/command and control/data control components to the user selected serial hard disk drive to place the serial hard disk drive in an operational mode and open their circuits to any not-selected serial hard disk drives from the serial hard disk drives connected to the Serial Hard Disk Drive Selector to place the not-selected serial hard disk drives in a non-operational mode.
22. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to configure a master control component so it could close the circuits of the power control and the address/command and control/data control components to the user selected serial hard disk drive to place the serial hard disk drive in an operational mode and open their circuits to any not-selected serial hard disk drives from the serial hard disk drives connected to the Serial Hard Disk Drive Selector to place the not-selected serial hard disk drives in non-operational mode as taught by *Oue*. One of ordinary skill in the art would have been motivated to perform such a

modification in order to save power consumption and suppress data destruction caused by unexpected access or shock to a minimum [*Oue*, 9].

23. As per the limitation 1 b), *Miller* teaches that the power control component is coupled between the computer system's electrical supply bus and the power supply terminal of each of the plurality of the serial hard disk drives that closes the circuit from the computer system's power supply to the user selected serial hard disk drive (*key switch with I.O.S. circuit board, Fig. 2*).

24. *Miller* does not explicitly teach that the power control opens the circuits to any not-selected serial hard disk drive from the plurality of the serial hard disk drives connected to the Serial Hard Disk Drive Selector. However, implementation of *Oue's* invention would close the power control and open the circuits to any not-selected serial hard disk drives from the plurality of the serial hard disk drives connected to the Serial Hard Disk Drive Selector.

25. In Fig. 2 (*Miller*) it is clear that in addition to power circulating between hard disks and other components of the computer system there are data buses, and it is inherent that these data buses allow flow of address, commands and other data from (/to) the computer components to (/from) the selected hard disks which read on the limitation 1 c).

26. Neither *Miller* nor *Oue* explicitly teach that the hard disks are serial hard disk drives.

27. *Kawamura et al.* teach serial hard disk drives (*Abstract*).

28. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement a serial hard disk drive as taught by *Kawamura et al.* One of

Art Unit: 2134

ordinary skill in the art would have been motivated to perform such a modification in order to accommodate various technologies.

Double Patenting

29. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6480350. As disclosed by applicant (*the Petition for the Special Status application*), U.S. Patent No. 6480350 is closely related to the current application and differs from the patent essentially by introducing serial hard disks (and as a result a Serial Hard Disk Drive Selector). However, *Kawamura et al.* teach a serial hard disk drives (*Abstract*) and it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement a serial hard disk drives as taught by *Kawamura et al.* into the invention as presented in U.S. Patent No. 6480350 given benefit of accommodating various technologies rather than limiting the invention to certain types of hard drives.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571)272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (571) 272-3838. The fax phone

Art Unit: 2134

number for the organization where this application or proceeding is assigned is
(571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Signature

9/6/05
Date

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

